DRAFT FOR HITSC APPROVAL July 20, 2011

Jonathan Perlin, MD
John Halamka, MD
Chair and Co-Chair of the HIT Standards Committee

Dear Committee Chairs,

Introduction

This letter details the Electronic Prescribing of Discharge Medications Power Team (Power Team) draft recommendations and requests the HIT Standard Committee's review and approval. The team was recently formed as a workgroup to the HIT Standards Committee (HITSC) to identify standards for electronic prescribing of medications when a patient is discharged from an acute care setting. The Power Team was asked to review and recommend standards for certified electronic health records (EHR) technology to be used by those who may be eligible for incentives in the Meaningful Use program. Accordingly, the Power Team constrained its work by assuming the ordering system to be a certified EHR, and the prescriber an authorized user of the EHR. The scope of the requested review included standards related to prescription orders, medication history, drug benefit eligibility and formulary in the discharge use case. The Power Team met by teleconference several times and maintained excellent communications by email since its inception. We reached agreement on the following recommendations by consensus.

Scope and Use Case Considerations

The scope of the use case may be summarized by the following elements

- Prescriber validates/reviews patient information including:
  - Medication history;
  - Drug benefit plan eligibility and formulary information
- Prescriber selects therapy
- Prescriber orders medication
  - Electronic prescription is delivered to the pharmacy
  - The processing pharmacy must be identified and the prescriptions routed appropriately
- Pharmacy dispensing information such as fill status notification is sent as needed

Special considerations may apply to discharge medications. While a discharge prescription order can sometimes be like any other prescription, it may have

unique considerations:

- Medications ordered prior to admission may need to be reordered at discharge, making medication history especially important
    - Medication history information may need to be obtained from other sources and reviewed in the prescriber's EHR system
- Multiple healthcare providers during the patient's inpatient stay may need to order medications, or may need to confer/concur on other medications ordered at discharge
- If another care facility is involved (e.g., patient discharged to a LTPAC), that facility may need to supply facility-specific information for the prescription(s)
- Pharmacy benefits may differ from inpatient medication formulary considerations, and may require selection of alternative products
- Discharge medications may be entered at multiple points in the discharge process, and may be altered subsequent to the initial discharge orders

Some of these considerations describe exceptions and/or improvements to common industry workflows, but none affect the recommendation of standards. The Power Team agreed to stick to usual and customary electronic prescribing, without automating special workflows for controlled substances, in order to identify standards for the discharge use case. A discharge workflow improvement was proposed for consideration in which pharmacies would hold discharge orders while primary care physicians would review and approve all discharge medications. This proposal was found to be un-implementable for pharmacies and was deemed out of scope.

A detailed use case description document currently is circulating among power team members and its final approval is expected on the next Power Team conference call. However, the Power Team reached agreement on recommended standards and the team's consensus on these recommendations would not be altered by the final review and editing of the use case documentation.

Recommendations:

1. **Electronic Prescribing of Discharge Prescription Medications.**

    Standards for prescribing transactions, to provide for the communication of a prescription between prescribers and dispensers.

    Rationale:
    It is important to align with existing regulations for electronic prescribing and widely used standards. CMS regulations specify prescribing standards for Medicare Part D that are used nationwide. Medicare recognizes and allows for essential differences between prescriptions filled by acute care hospital pharmacies versus medications dispensed by retail, outpatient, ambulatory and

long term care pharmacies through electronic prescribing. Thus, Medicare regulations allow for use of HL7 prescription transactions in a hospital setting and the NCPDP SCRIPT prescription transaction in the retail pharmacy scenario. Because discharge medications frequently are filled by hospital pharmacies, and frequently by retail pharmacies, both scenarios pertain to the discharge medication prescribing use case. Accordingly, both standards allowed by Medicare are recommended for EHR certification and Meaningful Use measures of discharge medication prescriptions. At the same time, we recommend aligning with the concurrent recommendations accepted by the HIT Standards Committee from the Clinical Operations Work Group Vocabulary Task Force (VTF) for medication vocabulary in electronic prescribing. This also aligns with recommendations to the Committee from NCPDP. The recommended vocabulary standard is RxNorm.

Standard:

- Electronic prescription of discharge medications with hospital pharmacies
    - Either HL7 messages or the NCPDP SCRIPT Standard may be used to transmit prescriptions and prescription-related information [42 CFR 423.160 (a)]
- Electronic prescription of discharge medications with retail, ambulatory or long term care pharmacies
    - The National Council for Prescription Drug Programs SCRIPT standard, Implementation Guide Version 10.6, approved November 12, 2008, or the National Council for the Prescription Drug Programs Prescriber/ Pharmacist Interface SCRIPT standard, Implementation Guide, Version 8, Release 1 (Version 8.1) October 2005 [42 CFR 423.160 (b)(2)(ii)]
        - (A) Get message transaction.
        - (B) Status response transaction.
        - (C) Error response transaction.
        - (D) New prescription transaction.
        - (E) Prescription change request transaction.
        - (F) Prescription change response transaction.
        - (G) Refill prescription request transaction.
        - (H) Refill prescription response transaction.
        - (I) Verification transaction.
        - (J) Password change transaction.
        - (K) Cancel prescription request transaction.
        - (L) Cancel prescription response transaction.
        - (M) Fill status notification transaction
- Vocabulary for prescription medications in electronic prescription communications
    - National Institutes of Health U.S. National Library of Medicine, RxNorm version 2011-4 (July 5, 2011): Semantic Clinical Drug

(SCD); Semantic Branded Drug (SBD); Generic Pack (GPCK); Branded Pack (BPCK).

2. Medication History

Standards for communication of patient medication history information to prescribers, from and among drug benefit plan sponsors, prescribers, patients, and dispensers.

Rationale:
The primary scenario for medication history that is applicable to discharge medication prescriptions is one in which the prescriber uses the EHR to review information about the patient's preadmission as well as inpatient medications. Two kinds of standardized medication history information exchange are specified in applicable regulations and both are widely implemented today. In Medicare regulations, CMS specifies the NCPDP SCRIPT standard for communicating Medicare Part D medication history information from Part D plan sponsors and dispensers. Medications paid for by non-Medicare plans also can be in this standard. For a broader view of the patient's medication history, ONC EHR certification regulations specify HL7 CCD or ASTM CCR standards for representing and exchanging health summaries including a longitudinal medication history section. Medication history information received from other providers and/or other EHR systems can be in these standards. It also would be highly desirable to standardize methods of exchanging patient-reported medication history information, but we understand that no such standards are specified and widely implemented today. As a result of the above, we recommend EHR certification and Meaningful Use measures should specify the NCPDP SCRIPT and HL7 CCD and ASTM CCR standards to inform the prescriber of the patient's medication history in an EHR used as the prescription ordering system. Standards should be developed for the communication of patient-reported medication history to prescriber EHRs. We also support the standardization of prescription medication vocabulary for communicating medication history to discharge medication prescribers, following the same recommendations as electronic prescription communications.

Standard:

- Communication of medication history to prescribers from Medicare Part D plan sponsors and dispensers, and from other drug benefit plan sponsors and dispensers as applicable
    - The National Council for Prescription Drug Programs Prescriber/Pharmacist Interface SCRIPT Standard, Implementation Guide, Version 8, Release 1 (Version 8.1), October 2005 [42 CFR 423.160 (b)(4)]

- Communication of medication history to prescribers from certified electronic health records technology, and other electronic health records technology as applicable
    - Health Level Seven International, Implementation Guide: Clinical Document Architecture (CDA) Release 2—Continuity of Care Document (CCD), April 01, 2007 [45 CFR 170.205 (a)(1)]
    - ASTM International E2369–05: Standard Specification for Continuity of Care Record (CCR), ASTM approved July 17, 2006 [45 CFR 170.205 (a)(2)]
- Vocabulary for prescription medications in electronic prescription communications
    - National Institutes of Health U.S. National Library of Medicine, RxNorm version 2011-4 (July 5, 2011): Semantic Clinical Drug (SCD); Semantic Branded Drug (SBD); Generic Pack (GPCK); Branded Pack (BPCK).

3. Eligibility for Drug Plan Benefits

Standards for transmitting eligibility inquiries and responses between prescribers and drug benefit plan sponsors.

Rationale:
The X12 270/271 transaction standards and NCPDP telecommunications standards for communicating information about a patient's eligibility for drug benefit plan coverage are specified in HIPAA regulations and widely implemented by HIPAA covered entities including prescribers and dispensers of discharge medications. We recommend these standards should be required in EHR certification and Meaningful Use measures when needed for electronic prescribing of discharge medications. Because the expected date for implementation of this recommendation is after December 31, 2011, we are recommending only those versions to align with applicable regulations.

Standard:
- Professional and institutional health care eligibility benefit inquiry and response
    - The ASC X12 Standards for Electronic Data Interchange Technical Report Type 3— Health Care Eligibility Benefit Inquiry and Response (270/271), April 2008, ASC X12N/005010X279 [45 CFR part 162.1202 (b)(2)(ii)]
- Retail pharmacy drugs
    - The Telecommunication Standard Implementation Guide Version D, Release 0 (Version D.0), August 2007, and equivalent Batch Standard Implementation Guide, Version 1, Release 2 (Version 1.2), National Council for Prescription Drug Programs [45 CFR part 162.1202 (b)(2)(i)]

4. Formulary

Standards for transmitting formulary information and for querying drug benefit plan formularies.

Rationale:
The Power Team received comments from several sources regarding formulary standards. Medicare regulations allow for use of the National Council for Prescription Drug Programs Formulary and Benefits Standard, Implementation Guide, Version 1, Release 0 (Version 1.0), October 2005 [42 CFR 423.160 (b)(5)], as formulary standards, however, according to NCPDP members this is not widely implemented. According to representatives of pharmacy benefit plan sponsors and electronic prescribing network service providers on Power Team calls, there are no known standards for representing formulary information, and/or for querying formularies, that accommodate the benefit plan types, formulary hierarchies, data structures and other provisions of the variety of drug benefit plans in the market today, nor standardized representation of therapeutic equivalents. For such standardization to occur there would have to be standards for alternative medications in formularies, as well as metadata standards for prior authorization requirements, copayment tiers, benefit accumulator flags and other items to be determined. Frequently, formulary information is exchanged between plan sponsors, benefit managers, and prescription service providers in flat files or spreadsheets today, and different operating rules may need to be applied to these data for different plan types. Implementations of formulary information in EHR technology vary widely. The Power Team believes this is an area where further development is needed and no standard is recommended at this time but one may be specified in the future.

Standard:
No standard.

Summary

The Power Team recommends aligning standards for electronic prescribing of discharge medications including prescription transactions, medication history information, and drug plan eligibility and benefits with applicable standards from Medicare Part D, EHR Certification, and HIPAA regulations. We recommend aligning vocabulary standards with other medication vocabulary standards recommendations previously approved by the Committee. We recommend that new standards should be developed and/or specified for the exchange of formulary information and the communication of patient-reported medication information to prescriber EHR systems.

These recommendations were targeted to address a set of questions raised by ONC and

we hope that you find them helpful. We look forward to continuing to work with you on these issues.

Sincerely,

s/ Jamie Ferguson

Jamie Ferguson
Lead, E-Prescribing Power Team

Members of the Power Team:

- Kevin Hutchinson
- Liz Johnson
- Don Bechtel
- Scott Robertson
- David Yakimischak
- Jamie Ferguson, Lead

ONC

- Judy Sparrow
- Doug Fridsma
- Anand Basu
- Mera Choi
- Carol Bean